Gateway

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The ARRL Packet-Radio Newsletter

TO KT OR NOT TO KT

[KT (for Kill traffic) is the command that is used to delete NTS traffic from a PBBS. When the command is executed, the PBBS deletes the message and automatically generates a "service message" back to the station that originated the traffic, informing that station that the traffic has been removed from the system (presumably, for delivery or further relay) and by whom. There is a debate brewing on whether KT is necessary in today's packet radio NTS. WA7MAD and KA1T present differing views on the subject.]

I am in favor of KT implementation because it provides something we sorely lack on HF NTS, ie, documentation. I believe the reason that servicing of all messages has not been done on HF is that it would take a large amount of time on phone or CW to handle the additional workload and the would create a lot of drudge work. Who wants to spend time handling service messages?

The short, one-line packet automatic service message generated by KT provides an ongoing check of the operation of the system. If someone kills a message for delivery, he takes responsibility for it and KT indicates it.

It is my strong feeling that packet will bring a renaissance to NTS, but only if it is open to all. If Joe Ham wants to attempt a delivery, he can do so without knowing anything about originating a service message.

It seems that message delivery is a very big problem with NTS. I can't tell you the number of times I have heard nothing one way or the other on the status of traffic. There have been several times when I have known the addressee of traffic I originated and he has told me the message was not received and I received no service message. I have tried to trace the message station by station, but I have yet to successfully trace one completely; one station doesn't respond and that's the end of the trace. It seems that when you send something, the system gobbles it up, never to be heard from again. I am almost at the point of assuming nondelivery unless I hear otherwise. When taking traffic off packet, I always try to notify the originator of delivery. Responses I have received indicate this is appreciated.

Now we have a golden opportunity to correct a serious flaw in the system. Why must we make packet NTS a clone of HF NTS? Why not use our technology to improve upon it? When someone says to me, "I gave you a message and it was never delivered," I say, "Too bad, I'll try to find out what happened to it... give me a couple of weeks." With KT I can say, "I show that KXØXXX took your message for delivery, let me check with him." The former response would make the average person think our system is a joke. The latter would show him that we keep tabs on the traffic from start to finish; we would not assume that someone tried to deliver it, we would know it.

To sum up:

1. KT provides a check on the system. How long did it take to reach its destination?

2. KT is automatic. Joe Ham can make a delivery and not know anything about service messages. It will save time for experienced traffic handlers especially in emergencies.

3. KT documents the system. You know it made it to a station for delivery; no more assumptions. If someone kills the message, he is automatically assigned responsibility as he should be.

It should be impossible to kill traffic unless the KT command is used. I would also like to see the automatic generation of a service message when a piece of formal traffic sits on a PBBS for more than two days to indicate that it is making no progress.

We have a technology that can work like a clock, keeping us fully informed. The system should not be, like the HF system, a mysterious void that takes the traffic and leaves us to assume what happens. Let packet be all it can be for traffic handling. Yes, KT is needed!

from Clif Brown, WA7MAD @ KJ9L, ORS, NCS

On the other hand...

The automatic creation of a service message (S-type message) when traffic is killed via the KT command was instituted in the earlier days of using PBBSs for NTS traffic. Its intent was to notify the person who placed the traffic in the automatic-forwarding system that someone took it off and it didn't just "die" at some other PBBS. This was necessary to build confidence in the system in the days when liaison stations were not implemented and a lot of us had concerns about whether traffic was indeed being delivered once it was put into the system.

The network of PBBSs, automatic forwarding and liaison stations which we have developed in New England seems to be working very well. It has been a long time since I have heard comments about traffic "dying" in the system. So, a recent suggestion that we eliminate S-type messages in

New England seems to be a reasonable thing to do. It would reduce the number of messages in the system and would ease the job of the SYSOP who finds the S-type messages staying on his PBBS for extended periods of time or finds them addressed to stations who are unknown.

What is your opinion, and the opinion of the others who handle NTS traffic in your Section? Can we eliminate automatic generation of the S-type messages on our New England PBBSs (and elsewhere)? Or do you feel they still provide a necessary feedback to the submitter? Remember that the originator still can use the HXC handling instruction in the preamble of the message if he wants confirmation of delivery.

from Don Haney, KA1T @ K1UGM,
NTS First Region Packet Manager

GRIP CODE: A NEW WORLDWIDE ROUTING ALGORITHM

The article "A New Routing Algorithm" (Gateway, Volume 3, Number 8) inspired a thought on another way to solve the proliferating PBBS routing code problem. Rather than the "@ PBBS & PBBS" identifiers or the types like "GA0023C W3IWI," I would suggest standardizing on the "@ Grid Square Plus ID" method underlined herein. One is tempted to call it the GRIP code (Grid Plus or maybe Gateway Routing Information Protocol).

The ARRL outlines the grid-square locator system in QST, January 1983, pages 49-50. VHF contest and DX enthusiasts are quite familiar with this system and it applies worldwide, which is useful and pertinent information to the next part of this discussion.

Let's say I want to send a message to KB1MW who can be reached via some PBBS and I know where the PBBS is at via callsign directory or other source. Merely looking up the grid-square locator code per the QST article above gives me (as an easy example I use W1AW-4 in Newington, CT) a locator code of FN31.

Using the GRIP code I could route a message to KB1MW via PBBS W1AW-4 as:

SP KB1MW @ FN31, W1AW-4

or perhaps as

SP KB1MW @ W1AW-4 & FN31

which I find more acceptable.

The beauty of this system is that I only need to know the GRIP code and the call of the PBBS. Routing would become nearly automatic thereafter, as any well-equipped PBBS would be able to distinguish the general direction to send the message. In fact, a simple computer algorithm could even calculate the destination direction since the GRIP code is related to the geographical coordinates, and applies to anywhere on earth! As future use of packet grows as predicted by many, and Phase-III comes on line, this ease of locating a PBBS anywhere on earth may become mandatory!

from Glenn Williams, AF8C @ KB8CI & EN91,
ARRL Technical Advisor

NEW PACKET RADIO SOFTWARE AND HARDWARE

NET/ROM VERSION 1.3 RELEASED

Software 2000 is now shipping a new release (version 1.3) of NET/ROM. Version 1.3 adds the following four enhancements:

o A CQ command and a sophisticated facility for calling CQ and answering CQs. (This is the most-requested enhancement since the inception of NET/ROM.)

o At SYSOP's option, a node's 10-minute station identification beacons can be made conditional on whether or not the node has transmitted anything in the past 10 minutes (per request of WØTN and others).

o NET/ROM now maintains its routing table in sorted order resulting in a sorted Nodes display that is much easier to use.

o NET/ROM now uses an exponentially-distributed random key-up delay algorithm (known as "p-persistent CSMA" in place of the old fixed DWAIT.

Shipment of NET/ROM orders has been suspended for the past two weeks in anticipation of this new release, so if your order has been a bit delayed, you lucked out! Node-ops wishing to order an upgrade to the latest 1.3 firmware should telephone Software 2000 at 805-489-1977, leave your name and address on the answering machine, and request an order form.

from CompuServe's HamNet

MACKET: NEW PACKET PROGRAM FOR MACINTOSH COMPUTERS

A new packet-radio program for Apple Macintosh computers called Macket is now available. It includes the following features:

o The program works with any TNC that has an RS-232 port.

o Windows are provided for entering text, displaying the receive buffer and logging transmitted text. These windows support features expected by Macintosh users, such as scrolling and copying to the Mac's Clipboard. Text can be edited before it is transmitted.

o When used with a TNC 2-type TNC that supports the RXBLOCK command, Macket can display connected data separately from monitored data. This makes monitoring convenient even during a conversation. (Similar support may be available in the future for users of the WA8DED replacement firmware and the AEA PK-232.)

o The user is rarely kept waiting; at almost all times, the operator can enter text or use desk accessories even while simultaneously transmitting one file and receiving another.

o A status window displays the progress of file transfers and information about the computer-TNC link.

o Text uploading, downloading and printing are supported.

o Ten macro keys are available to speed text entry.

o JSets of Macket options can be saved for different operating applications.

Note that Macket requires a Macintosh with at least 512 kbytes of RAM. It may be ordered from S. Fine Software, Calder Square, P.O. Box 10629, State College, PA 16805-0629 (Pennsylvania residents must include sales tax) or from Pac-Comm at 800-223-3511.

For more information about Macket, write to S. Fine Software.

from Steve Fine, WD8PUH

PACKET RADIO WEATHER STATION ON THE AIR

Bill Hutchins, KB6CYS, now operates a 24-hour-per-day automatic packet weather station in Cypress, California (approximately 3 miles southwest of Knott's Berry Farm). When you connect, the station automatically sends you a current weather forecast, information about storm systems, the present temperature, dew point, barometric pressure, rate-of-change of pressure, wind direction and speed, maximum wind gust for the day, temperature minimum and maximum for the day, and precipitation total for the day, month, and year. (You connect to KB6CYS on 145.01 MHz from any of the nearby NET/ROM nodes such as W6AMT-3, W6AMT-5, or AA6TN-1.)

Bill uses a Heath ID-4001 weather computer and a Texas Electronics "rain bucket" all connected via a homebrew interface card to an Apple IIe computer which runs a data acquisition program Bill wrote in BASIC. Communications gear includes a TNC 1 running WA8DED code, ICOM IC-251 transceiver and a Ringo Ranger antenna at 30 feet. A second Apple IIe is used as a terminal. Forecasts come from the National Weather Service (NWS), although Bill deviates from NWS forecasts when he thinks they are off. Planned upgrades at his station include weather-related files and additional selectable sensors.

As far as we know, Bill has the first weather station on packet. He would like to see more. By the way, Bill does all of this as a hobby. He is an engineer at an aerospace firm when he is not building weather stations. You can contact him by leaving a message at his station after the weather information is sent or via the KA6IQA PBBS.

by Franklin Antonio, N6NKF, from
San Diego Packet Radio Association Newsletter

MACK PACKET

Sunday morning, I was downloading a message from the W1AW-4 PBBS, when my TNC informed me that I was multi-connected to KD1R on stream B. Here is part of my conversation with Ralph Stetson, KD1R.

KD1R: FB STAN IM STILL SITTING HERE AT THE UNION 76 TRUCKSTOP NEXT TO I84....>>

WA1LOU: mobile packet? you are loud & clear here>>>

KD1R: HERE LET ME RUN MY BRAG FILE TO YA.... Rig here is a Kenwood TW-4000 dual-bander. Antenna is a bent & mutilated Larsen 5/8ths Mag Mount atop the Mack Truck at 12 feet off the road. The TNC is a MFJ-1274, controlling a Radio Shack Model 100 laptop. My home is Essex, Vermont near Burlington on the West Coast of New England. I am driving a tractor/trailer for North American Van Lines. I also have my HF station set up in here as well. It is a Kenwood TS-820S >>

WA1LOU: Wow!

Need I say more?

TRS-80 MODEL 100 TERMINAL BLUES CURED

The TRS-80 Model 100 computer is a very popular terminal for packet radio applications, however, I encountered an intermittent keyboard lockup problem that became intolerable! The problem could not be cleared by entering CTRL-Q. Replacing the Model 100 with another RS-232-C terminal (without turning off the TNC) resulted in normal operation, which indicated that the fault was in the Model 100. To confuse matters, connecting the receive and transmit leads of the Model 100's RS-232-C connector resulted in a successful loop operation. Finally, it was determined that the internal terminal parameter settings of the Model 100 changed, although the LCD readout indicated otherwise. A handheld RF source was brought progressively closer to the computer's RS-232-C cable and it was discovered that RF was the culprit! Further tests indicated that HF signals of higher amplitude would cause a change as well. The solution was easy. A ferrite toroid on both the RS-232-C and the wall-mount power transformer cables installed right at the computer solved the problem. (TAPR indicated that similar treatment at the TNC 2 is helpful in limiting HF interference, so to do both ends of the RS-232-C cable for a complete cure.)

from Cliff Buttschardt, W6HDO

REPEATER DIRECTORY DEADLINE APPROACHES (CHRISTMAS IS COMING, TOO!)

December 1 is the deadline for the 1988-89 edition of the ARRL Repeater Directory, so, if you would like your 24-hour packet radio system included in the next edition, please submit the information about your system(s) in the following format soon:

STATE/PROVINCE;

LOCATION: city, town, hill, etc.;

FREQUENCY: if a full-duplex repeater, include frequency offset; if a multiport operation, include each frequency used;

ADDRESS: call sign;

SPONSOR: club name or individual call sign;

SOURCE: source of this information;

NOTES: please supply the following information:

System Type: [digipeater, gateway, PBBS, other; if a digipater, then give coverage area (radius in miles)],

Links: (if you are a single-hop link between two or more other digipeaters, please list them).

Please submit the information to the ARRL, Repeater Directory Editor, 225 Main St., Newington, CT 06111. Organizations with multiple listings are invited to submit data on MS-DOS/CPM 5-1/4-inch diskette.

Due to the great number of possible responses, the above information will be used to determine major systems and only major systems will be listed in the Repeater Directory.

from Bart Jahnke, KB9NM, Repeater Directory Editor

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